

## ABSTRACT

A convolutional encoded signal, having at least one predetermined bit at a predetermined bit location in the signal, is decoded, taking into account the at least one predetermined bit. As in a known Viterbi decoder, error coefficients are determined, 5 representative of differences between successively received encoded symbols of the encoded signal, representative of transitions of the state of an encoder with which the signal was encoded, and predetermined permitted transitions from the said states. Sums of error coefficients corresponding to successions of transitions are determined to find a succession of transitions having a least sum, representative of a least error 10 decoded signal. However, states which are inconsistent with the predetermined bit at the predetermined bit location are effectively discounted, as are any transitions passing through such a state. This may be visualised as constraining a Viterbi trellis in the vicinity of the at least one predetermined bit.

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